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David Andrew D'Zmura P. O. Box 2541 Palm Desert, CA 92261

May 5, 2004

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Commissioner for Patents United States Patent and Trademark Office P. O. Box 1450 Alexandria, VA 22313-1450

**GROUP 3600** 

Attn: Group Art Unit 3628

by USPS Express Mail, Label ER 563240350 US

Re: My Patent Application, Number 09/489,739

Sole Inventor: David Andrew D'Zmura (pro-se independent inventor)
Sole Applicant: David Andrew D'Zmura (pro-se independent inventor)
Sole Owner: David Andrew D'Zmura (pro-se independent inventor)

Filing Date: January 21, 2000

Title: Valuation Technologies and Related Applications

Examiner: Mr. Jeffrey Pwu Group Art Unit: 3628

## **Response to Office Action**

## Dear Examiner Pwu:

Thank you for your Office Action, containing your thoughtful Detailed Action. As I informed you, that mailing arrived in my post office box substantially late from its postmark and was opened. Its contents had been gone through and some sheets were marked and re-stapled. I bring this to your attention, because all of the mail from the USPTO to me at my Box 2541 has been consistently and repeatedly delivered to me in this tampered and vandalized fashion. Thus, in addition to providing herein my response, I am now changing my address on my application.

I have been delayed in responding to your Office Action, postmarked as of 11/13/03, due to a medical condition. By my reckoning, I owe the USPTO the late charge of \$475 (I am a small entity - a pro-se independent inventor) as I am making this response within three months late. I have enclosed payment of \$475 herein, to cover this late charge, and also file herein the Form 22.

Respective my Response to the Office Action, in your Detailed Action, and in our phone interview of 11/24/03, you require me to present detailed arguments on two topics. These are:

- 1) that my substitute specification does not contain new matter;
- 2) that the usefulness and modes of application of my matter are well known in the field. In these respects, I will provide you with consequential arguments and solid convincing proofs.

To begin with topic 1), I provided a signed statement, dated and filed of August 9, 2001, confirming that I have not entered new matter into my substitute patent application specification.

Secondly, my drafting and submission of a substitute specification was required of me by my previous examiner, Mr. Poinvil. In his Office Action and in phone interview, he required my substitute specification to achieve several criteria: a) to condense and consolidate (thus, shorten) the specification; b) to remove the drawings, graphs, charts and data arrays from the specification and place them (as is proper) in the set of drawings; c) to double space the specification; and d) to increase the font size from 10 to 12. This was very time consuming, but I did file this 8/9/01.

To place this in context, I filed my very first patent application, a provisional patent application, filing date of November 5, 1996, #60/030,085, which was duly reflected in the continuing data field of my #09/489,739 application, in the latter's corrected filing receipt dated 05/11/2000. Please ensure that this provisional application is reflected in #09/489,730's priority data field currently, as that provisional contains the matter which is presently being examined.

To the point, in 11/1996, I did not know the USPTO conventions regarding format, drawings, specifications, margins, font size, uniform lines, etc., and my #60/030,085 reflects that. Similarly, I still did not fully understand those requirements when I filed my #09/489,739; (its) my original filing, entitled, "Invention in Finance", its Section I, pages 2 through 28, is simply a duplicate of my format of specification mixed with drawing, and contains the same matter as the group of inventions presently being examined by you, comprising the claims 39 through 51.

My substitute specification of August 9, 2001 contains no new matter over my original filing of 1/21/2000. In fact, it contains less matter, and is noticeably briefer and more concise. Whereas the original filing specification is 82 pages, typically single spaced and font size 10, the current specification you have on hand, of 8/14/02, is just 50 pages, double spaced, font size 12.

The difference between the two substitute specifications, of 8/9/01 and of 8/14/02, is that the one of 8/14/02 includes two parts which I neglected to include in the specification of 8/9/01 - but which were in the original filing - and I did not enter any new matter. The first part entered into the 8/14/02 specification is the Background section, which Examiner Poinvil said was not only required, but which was expected, given that I had devoted substantial detail to background in my original specification, for instance, the pages 2 - 6, pages 29 - 35, pages 68 - 72, etc. The second part entered in the 8/14/02 specification is the matter entered as amendment on page 38 of the 8/9/01 substitute specification. This is textual description in specification of the drawings 91 and 92 contained in the replacement set of drawings which I provided with my specification in my response dated 8/9/01. Hence, it is not new matter over my response of 8/9/01. Further, it is not new matter over my original filing of 1/21/2000, because this matter, in textual description, is contained in my originally filed specification of my filing of 1/21/00 on its pages 43 through 47.

Concerning my replacement set of drawings, per Examiner Poinvil, I moved all of my drawings, charts, graphs and data arrays (and spreadsheets) from the specification to the drawings and hence, the number of drawings tremendously expanded in my response of 8/9/01. In my response of 8/14/02, I re-submitted the same set of drawings, however, several of the drawings I corrected so that uniform lines, solid black ink, margins and such standards where uniformly met.

I hope this detailed presentation satisfactorily confirms I have introduced no new matter.

With respect to your concern that my matter is directed to abstract ideas without sound or useful industrial application, or that my claims do not adequately delineate what one does with the data values computed by my novel algorithms, I shall allay your concerns on this forthwith, by utilizing references and information contained in my original specification filing of 1/21/2000.

In the Background section pertaining to this group of invention, pages 2 through 6 of my 1/21/2000 specification, as well as contained in the detailed description of this group, pages 7 through 17, my original specification clearly and unequivocally delineates, describes, discusses and documents that, and in which critical manners, my algorithms and linked computational processes are concrete improvements over the prior art. My original specification demonstrates both, from a mathematical precision basis and from an empirical result basis, that my algorithms and linked computational processes render more precise data values, and as a result, more rigorous and accurate empirical results in applications. For instance, my duration and convexity are the precise first and second derivatives of the yield-to-price relation, whereas prior art affords only approximations thereof. Further, my duration and convexity model inherent relations, such as the negative magnitude of duration, whereas prior art incorrectly signs it having a positive one. Lastly, my duration and convexity require only endogenous variables of C, Y, T, and hence my mathematics have integrity, whereas the prior art modality mixes in a tautological variable, price.

The proof is demonstrated. My test results of applying my algorithms in my linked computational processes demonstrate far greater rigor and precision than do prior art mechanics. Further, my over-riding financial mathematics of Yield M, conforming to my pricing function, affords, for the first time in history, a robust mathematical application basis to value divergent types of financial securities, for instance, fixed-income bonds, equity stocks and insurance policies, in a formulation that will allow reference value data to be generated such that these various types of securities can be cross-referenced, i.e. all valued in a universal valuation format. Lastly, whereas the forward spot curve had no demonstrable rhyme or reason to it previously, my Yield M mathematic demonstrates, and usefully measures, a security having data value in line with the forward curve, in fact de facto creating and supporting the curve. With this process, any security can be valued, traded or arbitraged against any other security or any yield curve rate. As I discuss and demonstrate in great detail (which I consolidated out of my substitute specification), my original specification deeply details these mathematical, empirical, and useful, applications.

The usefulness and applications of my valuations functions, formulae, algorithms and linked processes far exceed the limited scope in which I demonstrate and display them in my specification, drawings and claims. The reason I have not done so is that the substantial and multifaceted usefulness and application of my matter are well known in the field. Entire books, and substantial parts of graduate textbooks in finance, are dedicated precisely to topics such as yield, duration, convexity, theta, spot and forward rates, yield curves, and their usefulness and applications with respect to valuation of a security, with respect to its sensitivity to change in value over time, with respect to utilizing such values to creating hedging and immunization strategies, to constructing, balancing and managing a portfolio, etc., that it is not necessary for me to detail or delineate these well known topics, mechanics and applications within my patent application specification, drawings or claims. For list of such books, please see those cited by me in my original specification on its pages 3, 4, 6, 54 and 74, wherein such is amply illustrated.

Respective my set of claims, I appreciated your considered appraisal of my set of claims. I enter, herewith, a replacement set of claims bearing revisions per your comments. Please delete my previous set of claims, numbered claim 39 to claim 51. Please enter the enclosed set of claims, numbered claim 52 to claim 63. Thank you for entering this replacement set of claims.

Sincerely,

David Andrew D'Zmura

(pro-se independent inventor)

enc. Payment of \$475 (three month late charge, small entity status)

Form 22

copy of Corrected Filing Receipt of May 11, 2000

Change of Address

Set of Replacement Claims for examination, claim 52 through claim 63 (on 23 sheets)

Certificate of Mailing:

I hereby certify I have mailed/deposited for mailing, this complete mailing, "Response to Office Action" and all enclosures, dated May 5, 2004, whitey at the U.S. Postal Service, mailing using U.S.P.S. Express Mail, this date, May 5, 2004, Label #ER 563240350 US.

Jod John The David Andrew D'Zmura